



Progress and Next Steps For Army's Operational Range Assessments (ORAs)



Environment, Energy & Sustainability Symposium and Exhibition (E2S2)

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Briefing Topics

- Overview of the Army's Range Assessments
- Program Drivers
- Assessment Process
- Phase I Description and Status
- Phase II Description and Status
- Referred Cleanup Program Sites
- Next Steps



Overview of the Army's ORAs

- Component of Army's Sustainable Range Program
- Effort to identify and evaluate potential off-range MC impacts from operational ranges
 - To protect human health and the environment
 - To ensure continuity of the test and training mission
- Assess all 425 Army Operational Range Complexes
 - Active Army, National Guard, Reserves
 - Over 10,700 individual ranges and over 15 million acres
 - 50 states and 2 territories
 - Small arms, large caliber, testing, training, maneuver
 - Excludes ranges being assessed/monitored under existing authorities (i.e., permitted OB/OD sites, Mass Mil Reservation)



Program Drivers

- DoDD 4715.11, 10 May, 2004, “Environmental and Explosives Safety Management on Operational Ranges Within the United States”
 - “Enhance the ability to prevent or respond to a release or substantial threat of a release of munitions constituents from an operational range to off-range areas.”
- DoDI 4715.14, 30 Nov 2005, “Operational Range Assessments”
 - Establishes and implements procedures to assess the potential environmental impacts of military munitions use on operational ranges.
 - All operational ranges within the United States except for indoor ranges and small arms ranges that are being assessed as part of an existing environmental compliance program.
- No Federal or Regulatory Drivers



Assessment Process

- Evaluates off-range migration of MC through Source, Pathway, Receptor interaction
 - Common MCs are Metals (lead), RDX, TNT, Perchlorate, etc – based on type of munitions used
 - Potential Sources determined by firing records, impact areas
 - Pathways evaluated are groundwater, surface water and sediment
 - Receptors are both human and ecological
- Conducted in Two Phases
 - Phase 1, Qualitative Assessment
 - Phase 2, Quantitative Assessment



Phase I, Qualitative Assessment (FY 05 –09)

- Executed by Army Environmental Command
- Uses Existing Information (No sampling)
 - Firing records, environmental reports, public records, etc
 - Interviews, Site visits
- Outcome
 - **Unlikely.** Assessment shows MC migration unlikely.
 - Finalize report and reassess during the Army's periodic review.
 - **Inconclusive.** Data gaps exist, more information is needed.
 - Phase 2 assessment will be conducted
 - **Referred.** Assessment shows MC is migrating off-range at unacceptable levels.
 - Finalize report and refer the site to the Army's cleanup programs.



Phase I Status

- The Army completed all required 425 Phase I Assessments by the end of FY09 as scheduled
- Final Report Summaries are located on DENIX
 - Full reports available by contacting installation POC
 - <https://www.denix.osd.mil/portal/page/portal/SustainableRangelInitiative/Policy/Reports/armyorap>

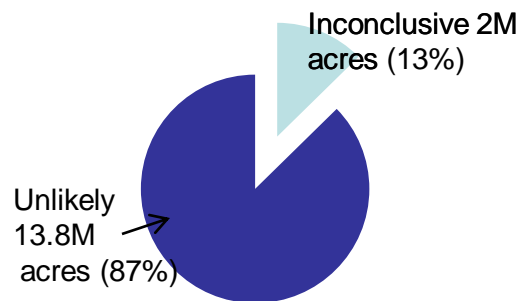
Phase I Completion Schedule			
	EOY07	EOFY08	EOFY09
Phase 1 (425 required)	220	418	425



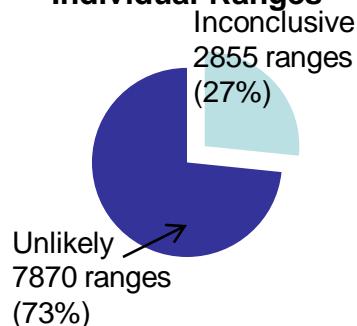
Phase 1 Status

Command	Total Range Complexes	Unlikely	Inconclusive	Referred
Active (includes Special Installations)	75	34	41	0
Army Reserves	38	33*	5	0
Army National Guard	312	256**	56	0
Total	425	323	102	0
* Includes dropped sites. **Includes dropped sites and Munitions Use Memos				

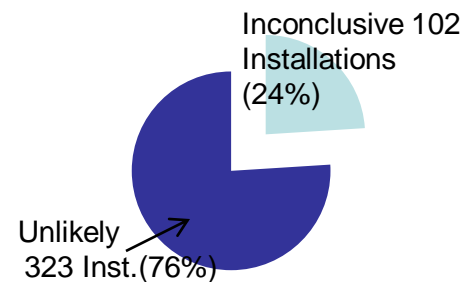
Acreage Status



Individual Ranges



Installation Status





Phase II, Quantitative Assessment (FY10-14)

- Executed by Commands – IMCOM (Includes special installations), National Guard, Reserves
- Includes sampling to address data gaps
 - Sampling of likely migration pathways (e.g. water and sediment) is used to identify contaminants above screening levels
 - Sampling protocol established by U.S. Army Public Health Command
- Outcome
 - **Unlikely.** Assessment shows MC migration unlikely
 - Finalize report and reassess during the Army's periodic review
 - **Referred.** Assessment shows MC is migrating off-range at unacceptable levels
 - Finalize report and refer the site to the Army's cleanup programs



Phase II Assessment

- Sampling of likely migration pathways (e.g. water and sediment) used to identify contaminants above risk-based screening levels
 - Screening Levels agreed to Services workgroup (RMUS).
 - Based on IRIS values if available, otherwise on best available benchmarks or applicable standards.
- If detections at or near range boundary are found above screening levels then further study is conducted to determine if there is risk to human or ecological receptors
 - BLM, AVS/SEM to determine metal bioavailability
 - BMI to determine stream health
 - CERCLA type risk assessment
- Areas with potential risk are referred to an appropriate Army Cleanup Program for further analyses



Phase II Status

- 102 Phase I Assessments referred to Phase II
- 9 Phase II Assessments currently underway
 - Ft Jackson, Ft McCrady, Ft AP Hill, Ft Drum, Camp Smith, Ft Riley, Ft Hood, Ft Gordon, Ft Lee
- 19 Phase 2's under contract FY10 (13 NGB, 4 USARC, 2 IMCOM)
- 102 Phase II's to be contracted by FY14



Referral to Cleanup Program

- Referred Sites – currently none (Cleanup at Massachusetts Military Reservation began prior to ORAs)
- Cleanup Programs authorized to perform off-range activities include:
 - Installation Restoration Programs or Military Munitions Response Program can use DERP funds for federally owned property
 - Compliance Cleanup Program will address other areas (i.e., State owned ARNG ranges)
- Immediate Mitigation Measures may be undertaken for MC that poses immediate threat to human health
- Close Coordination with the training community and installation is needed to ensure minimal disturbance to training activities



Next Steps

- Must continue to focus on mission at operational ranges by ensuring a sustainable range
 - Sharing Phase II findings with training community
 - Applying non-intrusive or minimally intrusive mitigation efforts that do not interfere or intrude on training mission
 - Applying topical applications that immobilize or breakdown MC (i.e., lime)
 - Seeding with grasses that take up MC
- Working with the training community and installation to develop BMPs for range management
 - Berm management
 - Firing lane adjustments
- Working with other services to share lessons learned and compare assessment practices



QUESTIONS?